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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Previously Presented) Method for assessing the stability of an electric power transmission network, where said network comprises a plurality of substations, buses and lines, and a system protection center, comprising:

- a) measuring phasor data for voltages and currents at a plurality of locations of the network,
- b) transmitting said phasor data to said system protection center,
- c) transmitting information regarding the state of switches of at least one substation to the system protection center, and
- d) the system protection center determining at least one stability margin value of the transmission network from said phasor data and said information regarding the state of switches.

Claim 2 (Previously Presented) The method claimed in claim 1, comprising:

- a) the system protection center determining one or more control commands,
- b) the system protection center transmitting said control commands to the at least one substation, and
- c) the substation executing said control command.

Claim 3 (Previously Presented) The method claimed in claim 1, comprising:

- a) the system protection center determining network state information,
- b) the system protection center transmitting said network state information to an energy management system, and
- c) the energy management system controlling power generation and power flow within the network according to the network state information.

Claim 4 (Currently Amended) The method claimed in claim 1, ~~characterised in that~~ wherein the phasor data is measured at least every 100 milliseconds.

Claim 5 (Currently Amended) The method claimed in claim 1, ~~characterised in that~~ wherein the phasor data is associated with a time stamp that has a temporal resolution smaller than one millisecond.

Claim 6 (Currently Amended) The method claimed in claim 1, ~~characterised in that~~ wherein the measurement of phasor data is synchronised by timing information from the global positioning system.

Claim 7 (Currently Amended) A system protection center for assessing the stability of an electric power transmission network ~~comprises~~ network, comprising: a data concentrator unit for storing phasor data for voltages and currents measured at a plurality of locations of the network ~~from a plurality of phasor measurement units that are distributed over the power transmission network~~ and transmitted to the system protection center, and for storing information regarding the state of switches of at least one substation and transmitted to the system protection center ~~substation data from a plurality of substation automation systems~~ and a system protection unit for generating at least one stability margin value of the transmission network from the phasor data and the information regarding the state of the switches.

Claim 8 (Previously Presented) The system protection center as claimed in claim 7, comprising an automated control unit for generating control commands for a substation automation system from the at least one stability margin value and from data provided by the data concentrator unit.

Claim 9 (Previously Presented) The system protection center as claimed in claim 7, comprising means for transmitting network state information to an energy management system of the transmission network.